

Faxed to SMO 8/30/91

Dioxin - 002

SAS No.

6684 A

U.S. Environmental Protection Agency  
CLP Sample Management Office  
P.O. Box 818 - Alexandria, Virginia 22313  
Phone: 703/557-2490 - FTS/557-2490

8-30-91  
Date

[Signature]  
Region I, CLP-TPO, SAS Approval

## SPECIAL ANALYTICAL SERVICES

## Client Request

LAB: NEA

C.F.

9.13.91

☒ Regional Transmittal☐ Telephone Request

- A. EPA Region/Client: Region I/ TRC
- B. RSCC Representative: Heidi Morahan
- C. Telephone Number: (617) 573-5765
- D. Date of Request: 8/30/91
- E. Site Name: CIBA - GEIGY CORP., Cranston, RI.

Please provide below description of your request for Special Analytical Services under the Contract Laboratory Program. In order to most efficiently obtain laboratory capability for your request, please address the following considerations, if applicable. Incomplete or erroneous information may result in a delay in the processing of your request. Please continue response on additional sheets, or attach supplementary information as needed.

## 1. General description of analytical service requested:

Analysis of water, soil, fly ash and/or chemical waste samples (stillbottom, fuel oil, and sludge matrices) using a modified version of the 12/90, Statement of Work for Analysis of Polychlorinated Dibenzo-P-Dioxins (PCDD) and Polychlorinated Dibenzofurans (PCDF).

Note: High Resolution Mass Spectrometry (HRMS) may be utilized as long as all QC requirements stated in this analytical request are met or exceeded. M - COCL<sup>+</sup> ions need not be monitored when employing HRMS.



2. Definition and number of work units involved (specify whether whole samples or fractions; whether organics or inorganics; whether aqueous or soil and sediments; and whether low, medium or high concentration):

2/Performance Evaluation Samples

3 Ground Water Samples

3. Purpose of analysis (specify whether Superfund (enforcement or remedial action), RCRA, NPDES, etc.):

RCRA, RFI Oversight

4. Estimated date(s) of collection:

September 09 - 13, 1991

5. Estimated date(s) and method of shipment:

September 9 - 13, 1991 by Federal Express. Saturday

6. Number of days analysis and data required after laboratory receipt of samples:

Analysis must be completed and data package must be received by the Region within 35 days of laboratory receipt of the last sample in the SDG.

7. Analytical protocol required (attach copy if other than a protocol currently used in this program):

12/90, Statement of Work for Analysis of Polychlorinated Dibenzop-Dioxins (PCDD) and Polychlorinated Dibenzofurans (PCDF), with SAS modifications. Any deviations from this analytical request must be approved by Region I prior to bid award.

8. Special technical instructions (if outside protocol requirements, specify compound names, CAS numbers, detection limits, etc.):

a.) All EMPC values are to be included in the TEF calculations.

b.) Second column confirmation is required for all samples which exceed the action level of 7 ppt for water, 0.7 ppb for solids (soil, sediment, fly ash and sludge; dry weight) or 7 ppb chemical wastes (dry weight).

8. Special technical instructions (if outside protocol requirements, specify compound names, CAS numbers, detection limits, etc.): cont.
- c.) Initial and continuing calibration must be performed on the confirmation column before analysis of samples. The concentration of PCDD/PCDF found in the samples must be reported on Form 1 DFC.
  - d.) Dry weights must be performed on all solid (soil, sediment, fly ash and sludge) samples. Immediately after weighing the sample for extraction, weigh 5-10 g of the sample into a tared crucible. Determine the percent moisture by drying overnight at 105° C. Allow to cool in a desiccator before weighing. Concentrations of individual analytes in each sample must be reported relative to the dry weight of the sample.
  - e.) The S/N ratio of the continuing calibration standard (CC3) must be greater than 10 to 1 for all unlabelled PCDD/PCDF ions and for all labelled internal, recovery and clean-up standards.
  - f.) Window defining mix must be analyzed every day prior to the continuing calibration standard (CC3).
  - g.) The laboratory must provide an example of an EDL and an EMPC calculation.
  - h.) All EMPCs must be clearly distinguished from EDLs by flagging all EMPCs with "#".
9. Analytical results required (if known, specify format for data sheets, QA/QC reports, Chain-of-Custody documentation, etc.) If not completed, format of results will be left to program discretion.

As per deliverables stated in Exhibit B of the CLP 12/90 Draft PCDD/PCDF SOW including the following clarifications:

- a.) SICP's must be presented so that the two, molecular ions and  $M^+$  and  $(M+2)^+$ , the  $(M-COCL)^+$  ion, and any relevant internal/recovery standards or diphenyl ether interferents are to be presented on one page. The SICP must show the full time window scanned for each ion.

9. Analytical results required (if known, specify format for data sheets, QA/QC reports, Chain-of-Custody documentation, etc.) If not completed, format of results will be left to program discretion. cont.

b.) The complete data system report shall include all of the information listed below. For laboratories which do not use automated data system procedures, a laboratory "raw data sheet", containing the following information, must be included in the sample data package in addition to the chromatograms and SICPs.

- o EPA sample number
- o Date and time of analysis
- o RT (and scan number if available) of identified compound
- o Ions used for quantitation with measured area
- o Copy of area table from data system
- o GC/MS instrument ID
- o Lab file ID

10. c.) Report Form I values corrected for the dry weight. Other (use additional sheets or attach supplementary information, as needed):

11. Name of sampling/shipping contact: Edward Mackinnon or  
Phone: (508) 970-5600 Cynthia Fortin

12. Data Requirements

Parameter

Detection Limit

Refer to Section C in the CLP 12/90 PCDD/PCDF SOW.

13. QC Requirements

<u>Audits</u> <u>Required</u>	<u>Frequency of</u> <u>Audits</u>	<u>Limits</u>	<u>Corrective</u> <u>Actions</u>
----------------------------------	--------------------------------------	---------------	-------------------------------------

As per the CLP 12/90 PCDD/PCDF SOW.

Note: Blind QC samples must meet EPA's 95% confidence limits.

Page 5 of 5

14. Action Required if Limits are Exceeded

Contact SMO and the Region immediately with all questions and/or deviations.

Please return this request to the Sample Management Office as soon as possible to expedite processing of your request for special analytical services. Should you have any questions or need any assistance, please contact your Regional representative at the Sample Management Office.